

Application No.: 09/045,118
Submission Under 37 C.F.R. §1.114 dated March 8, 2004
Reply to the Office Action dated April 7, 2003

REMARKS

New claim 43 was added. Claims 1-29, 31, 33-35, 37-39, and 41-43 remain pending. Claims 1-27 and 42 were previously withdrawn from consideration. Reconsideration of the claims in view of the detailed response below is respectfully requested. All unqualified references below to "the Office Action" pertains to the latest Office Action dated April 7, 2003.

Drawing Corrections and Specification Amendments

Both the drawing corrections and the amendments to the specification were objected to as presenting new matter. All of these new matter issues are substantially unchanged from the previous Office Action dated July 2, 2002. However, the objections to prior drawing corrections and amendments to the specification are improper, as detailed below. Furthermore, each and every correction is supported in the original disclosure. The Applicants submit that one skilled in the art not only recognizes the respective errors, but also the appropriate corrections thereto. The Applicants further submit that no new matter exists regarding the drawing corrections and specification amendments. Detailed remarks follow.

(A) Examiner Relied Upon Incorrect Standards for Sustaining the New Matter Objections

Regarding these new matter issues, the previous Office Action dated July 2, 2002 stated that "Applicant has the burden to demonstrate that no other reasonable interpretation of the

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specifications exists . . .” (Item 13 on page 10 of the July 2002 Office Action). The detailed remarks submitted with the Request for Reconsideration dated December 30, 2002 explain how no other reasonable interpretations could exist in justifying our drawing corrections and specification amendments.

In response thereto, the Office Action dated April 7, 2003 stated that the corrections and its support are required to be “void of any ambiguity” (see e.g., item 14 on pages 10 - 11 of the April 2003 Office Action). Apparently, the *new* requirement for the applicant to demonstrate support for the changes that is “void of any ambiguity” is one of the primary reasons for maintaining the new matter objections.

The new requirement for a showing of support set forth in the Office Action dated April 7, 2003 is incorrect. Nothing in the PTO rules (37 CFR) or in U.S. patent law requires a showing of support in the original specification for the corrections that must be “void of any ambiguity.” For instance, MPEP §2163.07 states that “amendments to an application which are supported in the original description are NOT new matter.” That section of the MPEP refers to *Schering Corp. v. Amgen, Inc.*, 55 USPQ2d 1650 (Fed. Cir. 2000). In the *Schering* case, the Federal Circuit also stated that “to avoid the new matter prohibition, an applicant must show that its original application supports the amended matter.” Nothing in the MPEP nor in the Federal Circuit decision requires a showing of support that must be “void of any ambiguity.”

Moreover, MPEP §2163.07 further states that “An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence

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of the error in the specification, but also the appropriate correction." The new requirement set forth in the Office Action dated April 7, 2003 for a showing of support that is "void of any ambiguity" would contradict permissible, non-new matter, *obvious* corrections.

Furthermore, patent law treatises describe court decisions as permitting amendments to the specification which "clarify" the original disclosure. For instance, one patent law treatise (Chisum – copies of relevant pages attached) indicates that amendments that only amplify and explain what was already reasonably indicated to be within the invention do not constitute new matter. Also, amendments to applications for the purpose of curing defects, obvious to one skilled in the art, also do not constitute new matter (consistent with the guidance in MPEP §2163.07 mentioned above). Also, amendments to the specification that merely render explicit what had been *implicitly* disclosed originally are not necessarily new matter.

(B) No New Matter

As detailed above, the Examiner is relying on a standard of proof beyond what is required for a showing of no new matter. Under the *correct* standards, there is no new matter introduced by the drawing corrections and specification amendments. The Applicants submit that one skilled in the art not only recognizes the respective errors, but also the appropriate corrections thereto (see, the detailed reasons set forth in the Request for Reconsideration dated December 30, 2002, incorporated herein in its entirety by reference). The Applicants submit that no new matter exists regarding the drawing corrections and specification amendments.

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Rejections Under 35 U.S.C. § 103

Claims 28, 29 and 33 were rejected under 35 U.S.C. '103 over the Applicants' admitted prior art (AAPA) in combination with **Toyotaka** (JP 07135208) and **Oda** (JP 6-20420). Claim 31 was rejected under 35 U.S.C. '103 over AAPA, **Toyotaka**, **Oda** and further in view of **Lage, et al.** (USP 5,485,420). Claims 34, 37, 38 and 41 were rejected under 35 U.S.C. '103 over AAPA, in combination with **Wolf** (Article entitled, "Silicon Processing for the VLSI Era") and **Oda**. Claims 35 and 39 were rejected under 35 U.S.C. '103 over AAPA, **Wolf**, **Oda**, and further in view of **Lage**.

Basically, the same prior art rejections from prior Office Actions were maintained. In the latest Office Action, the Examiner commented that **Wolf** discloses the broader problem and solution of reducing H₂O in all oxides in order to reduce OH charge traps. However, the Office Action still does not identify any portion of **Wolf** in support of this allegation.

At item 22 on page 14 of the Office Action, the Office Action merely stated that "it is well known that water dissociates and creates OH charge traps, *there is no need to prove this*, since applicant does not claim this feature, nor is the combination required to have the same motivations as applicant." However, the applicant never stated that the motivation for combination must be the *same* as the applicant's. In addition, whether or not the applicant claims the feature is *irrelevant* to the Examiner's burden of proof. In particular, 37 C.F.R. §1.104(d)(2) does not depend on whether or not the applicant claims a particular feature, the cited rule simply requires that the Examiner to submit an Affidavit setting forth facts within the Examiner's personal

knowledge that was relied upon to make any rejection. The Examiner had not done this and now makes further unsupported allegations about "no need to prove" the assertions being made.

As stated before, **Wolf** and **Toyotaka** do not reveal any indication or suggestion of reducing OH charged traps. **Wolf** and **Toyotaka** are silent regarding OH trap density or electric charge trap density.

On the contrary, **Wolf** only appears to describe the conventional practice of forming a BPSG film over a silicon nitride layer which prevents dopants from the BPSG layer from diffusing into the substrate during the flow and re-flow of thermal cycles. This has nothing to do with the "broader problem and solution of reducing H₂O in all oxides in order to reduce OH charged traps" as emphasized in the Office Action.

The further reference to page 195, table 4.4, property 5 and 18 also does not describe or address reducing OH traps. There is no apparent discussion regarding reduction of OH traps nor the reduction of charge trap densities, as alleged in the Office Action. However, the Office Action further stated that "both **Toyotaka** and **Wolf** teach that these qualities of an oxide are desirable and such oxides should be used for general applications ... one of ordinary skill in the art would find it obvious to use quality oxides in general, and would therefore use such an oxide for the first oxide."

Again, these are mere allegations without any citations in support thereof. Again, the Examiner is respectfully requested to submit an Affidavit setting forth supporting facts in accordance with 37 C.F.R. §1.104(d)(2).

Substitute Specification

The Office Action continues to require a substitute specification. The basis for the requirement is to assist USPTO printing and the Examiner's examination (see, e.g., item 13). If no substitute specification is submitted in response to the outstanding Office Action, the Office Action asserted that such a response would be treated as "deliberately non-responsive."

No substitute specification is provided with this submission. The Applicants are not being "deliberately non-responsive" since it is premature to file a substitute specification when there are still new matter objections to specification amendments. The Examiner is also respectfully requested to identify the specific USPTO rule ***requiring*** a substitute specification at this juncture. The Examiner is also respectfully requested to identify the specific USPTO rule permitting the Examiner to designate a response as "deliberately non-response" by failure to file a substitute specification at this juncture.

New Claim 43

New claim 43 clarifies that the first insulation film is formed by a plasma CVD process with a plasma power of 100W or less so as to contain H₂O with an amount smaller than about 1.1 wt%, and that the first insulation film has a refractive index of 1.5 or less.

With regard to the plasma CVD feature of claim 43, support can be found on page 20, lines 12-13 and page 22, line 14 of the original disclosure. With regard to feature of the plasma power of claim 43, support can be found on page 22, line 14 and in original claim 3. With regard to the feature of the H₂O content of claim 43, support can be found on page 20, line 25 of the original

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disclosure. With regard to the refractive index of claim 43, support can be found on page 20, line 30 and page 22, line 4. No new matter was added.


Summary

Nothing in the prior art, either alone or in combination, teaches or suggests each and every feature recited in the present claimed invention. In addition, no new matter was introduced by any of the prior amendments, as explained in detail above.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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Enclosures: MPEP § 2163.07
Patent Law Treatise (Chisum) excerpts (Vol. 4 § 11.04[2])